WEST Search History

DATE: Friday, August 22, 2003

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT; PLUR=YES; OP=AND			
L1	6290962.pn.	1	L1
L2	L1 and admin$	1	L2
L3	L2 and (secrector$ or siga or systemic or parenteral$)	1	L3
L4	L3 and route	1	L4
L5	L4 and inject$	1	L5
L6	L1 and (bay or r1005 or r-1005)	0	L6
L7	L1 and glycolipo$	0	L7
L8	L1 and lipid	0	L8
L9	L1 and lipid$	0	L9
L10	L1 and (dc or chol)	0	L10
L11	(cation$ near5 lipid$) and (helicobacter or pylori)	288	L11
L12	(cation$ near5 lipid$).clm. and (helicobacter or pylori).clm.	0	L12
L13	(cation$ near5 lipid$) and (helicobacter or pylori).clm.	8	L13

END OF SEARCH HISTORY

WEST Search History

DATE: Friday, August 22, 2003

Set Name side by side	Query	Hit Count	Set Name result set
	DB=USPT; PLUR=YES; OP=AND		
L1	(quil$ or saponin$ or quillaja or saponaria).clm.	1651	L1
L2	(helicobact or hpylori or h-pylori or pylori or pyloris or pylon or pyloridis or helicobacter or hepaticus).clm.	941	L2
L3	L2 and l1	2	L3
L4	5977081.pn.	1	L4
L5	(helicobact or hpylori or h-pylori or pylori or pyloris or pylon or pyloridis or helicobacter or hepaticus) and l4	0	L5
L6	(quil$ or saponin$ or quillaja or saponaria) and l2	20	L6
L7	L6 not l3	18	L7
L8	l7 and (adjuvant or excipient or enhanc$).clm.	5	L8
L9	hylobacterium	3	L9
	DB=JPAB,EPAB,DWPI; PLUR=YES; OP=AND		
L10	hpylori	0	L10
L11	(helicobact or hpylori or h-pylori or pylori or pyloris or pylon or pyloridis or helicobacter or hepaticus) same (quil$ or saponin$ or quillaja or saponaria)	10	L11

END OF SEARCH HISTORY

WEST Search History

DATE: Friday, August 22, 2003

Set Name side by side	Query	Hit Count	Set Name result set
	DB=USPT; PLUR=YES; OP=AND		
L1	(quil$ or saponin$ or quillaja or saponaria).clm.	1651	L1
L2	(helicobact or hpylori or h-pylori or pylori or pyloris or pylon or pyloridis or helicobacter or hepaticus).clm.	941	L2
L3	L2 and l1	2	L3
L4	5977081.pn.	1	L4
L5	(helicobact or hpylori or h-pylori or pylori or pyloris or pylon or pyloridis or helicobacter or hepaticus) and l4	0	L5
L6	(quil$ or saponin$ or quillaja or saponaria) and l2	20	L6
L7	L6 not l3	18	L7
L8	l7 and (adjuvant or excipient or enhanc$).clm.	5	L8
L9	hylobacterium	3	L9

END OF SEARCH HISTORY

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L11: Entry 4 of 10 File: EPAB Nov 6, 1998

PUB-NO: FR002762787A1
DOCUMENT-IDENTIFIER: FR 2762787 A1
TITLE: Helicobacter-derived immunogen for use as vaccine

PUBN-DATE: November 6, 1998

INVENTOR-INFORMATION:

NAME	COUNTRY
GUY, BRUNO	
HAENSLER, JEAN	

ASSIGNEE-INFORMATION:

NAME	COUNTRY
PASTEUR MERIEUX SERUMS VACC	FR

APPL-NO: FR09705608
APPL-DATE: April 30, 1997

PRIORITY-DATA: FR09705608A (April 30, 1997)

INT-CL (IPC): A61 K 39/39; A61 K 39/02
EUR-CL (EPC): A61K039/106; A61K039/39

ABSTRACT:

CHG DATE=19990905 STATUS=O>A composition (I) comprises: (A) an immunogenic agent derived from Helicobacter; and (B) at least one adjuvant chosen from (i) purified saponins from an extract of Quillaja saponaria; (ii) cationic lipids (or their salts) which are weak inhibitors of protein kinase C and have a structure including a lipophilic group derived from cholesterol, a carboxamide or carbamoyl linking group, a spacer arm consisting of a 1-20C alkyl chain and a cationic amine group (primary, secondary, tertiary or quaternary), provided that the lipids are not present in the form of liposomes when (I) contains neither (i) nor (ii); and (iii) glyco-lipo-peptides of formula (II). R1 = 1-50C alkyl (optionally unsaturated); X = -CH2-, -O- or -NH-; R2 = H or as R1; R3-R5 = H or acyl-CO-R6; R6 = 1-10C alkyl; R7 = H, 1-7C alkyl, hydroxymethyl, 1-hydroxyethyl, mercaptomethyl, 2-(methylthio)-ethyl, 3-aminopropyl, 3-ureido-propyl, 3-guanidylpropyl, 4-aminobutyl, carboxymethyl, carbamoylmethyl, 2-carboxyethyl, 2-carbamoylethyl, benzyl, 4-hydroxybenzyl, 3-indolylmethyl or 4-imidazolylmethyl; R8 = H or methyl; R9 = H, acetyl, benzoyl, trichloroacetyl, trifluoroacetyl, methoxycarbonyl, t-butoxycarbonyl or benzyloxycarbonyl;or R7 + R8 = -(CH2)3- .

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L11: Entry 7 of 10 File: DWPI Jan 19, 1999

DERWENT-ACC-NO: 1999-148469
DERWENT-WEEK: 199916

TITLE: Helicobacter pylori inhibitor for treating stomach cancer, etc. - contains isoflavone or saponin

PATENT-ASSIGNEE: YAKULT HONSHA KK (HONS)

PRIORITY-DATA: 1997JP-0160947 (June 18, 1997)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 11012172 A	January 19, 1999		004	A61K031/35

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
JP 11012172A	June 18, 1997	1997JP-0160947	

INT-CL (IPC): A23 C 11/10; A23 L 1/30; A61 K 31/35; A61 K 31/70; A61 K 35/78; C07 D 311/36; C07 H 17/065

ABSTRACTED-PUB-NO: JP 11012172A
BASIC-ABSTRACT:

Helicobacter pylori inhibitor contains isoflavone or saponin.

The isoflavone is preferably daidzin, daidzein, genistin or genistein. The active ingredient is soybean containing isoflavone or saponin or their processed material and the processed soybean is soybean extract, powdered soybean, soybean milk or fermented soybean milk.

USE - The Helicobacter pylori inhibitor inhibits Helicobacter pylori which causes gastritis, stomach cancer or gastric or duodenal ulcers.

ADVANTAGE - The Helicobacter pylori inhibitor has potent antibacterial activity and high safety.

ABSTRACTED-PUB-NO: JP 11012172A
EQUIVALENT-ABSTRACTS:

CHOSEN-DRAWING: Dwg.0/0

DERWENT-CLASS: B02 B04 D13
CPI-CODES: B04-A07E; B06-A02; B14-A01; B14-E08; D03-H01;

WEST

End of Result Set

☐ Generate Collection Print

L11: Entry 10 of 10 File: DWPI Jan 9, 2003

DERWENT-ACC-NO: 1995-320292
DERWENT-WEEK: 200311

TITLE: Compsns. for treating Helicobacter infections - contg. Helicobacter urease or urease sub-units as antigen

INVENTOR: BLUM, A; CORTHESY-THEULAZ, I ; DAVIN, C ; HAAS, R ; KRAEHENBUHL, J ; MICHETTI, P ; SARAGA, E ; KRAEHEN-BUHL, J ; CORTHESYTHEULAZ, I

PATENT-ASSIGNEE: ORAVAX INC (ORAVN), BLUM A (BLUMI), CORTHESY-THEULAZ I (CORTI), DAVIN C (DAVII), HAAS R (HAASI), KRAEHENBUHL J (KRAEI), MICHETTI P (MICHI), SARAGA E (SARAI)

PRIORITY-DATA: 1994US-0200346 (February 23, 1994), 1992US-0970996 (November 3, 1992), 1993US-0085938 (July 6, 1993), 2001US-0955739 (September 18, 2001)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 20030007980 A1	January 9, 2003		000	A61K039/02
WO 9522987 A1	August 31, 1995	E	114	A61K039/00
AU 9519681 A	September 11, 1995		000	A61K039/00
NO 9603508 A	October 21, 1996		000	A61K039/02
FI 9603281 A	October 22, 1996		000	A61K000/00
CZ 9602503 A3	December 11, 1996		000	A61K039/00
EP 751786 A1	January 8, 1997	E	000	A61K039/00
SK 9601094 A3	July 9, 1997		000	A61K039/00
BR 9506884 A	August 19, 1997		000	A61K039/00
JP 09509661 W	September 30, 1997		076	A61K039/02
HU 75374 T	May 28, 1997		000	A61K039/00
KR 97701061 A	March 17, 1997		000	A61K039/00
AU 694195 B	July 16, 1998		000	A61K039/00
NZ 282535 A	March 30, 2001		000	A61K048/00
US 6290962 B1	September 18, 2001		000	A61K039/00

DESIGNATED-STATES: AM AT AU BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU JP KE KG KP KR KZ LK LR LT LU LV MD MG MN MW MX NL NO NZ PL PT RO RU SD SE SG SI SK TJ TT UA UG UZ VN AT BE CH DE DK ES FR GB GR IE IT KE LU MC MW NL OA PT SD SE SZ UG AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE

CITED-DOCUMENTS:9.Jnl.Ref; US 5268276 ; WO 9004030 ; WO 9116072

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
US20030007980A1	November 3, 1992	1992US-0970996	CIP of
US20030007980A1	July 6, 1993	1993US-0085938	CIP of
US20030007980A1	February 23, 1994	1994US-0200346	Cont of
US20030007980A1	September 18, 2001	2001US-0955739	
US20030007980A1		US 5972336	CIP of
US20030007980A1		US 6290962	Cont of
WO 9522987A1	February 23, 1995	1995WO-US02202	
AU 9519681A	February 23, 1995	1995AU-0019681	
AU 9519681A		WO 9522987	Based on
NO 9603508A	February 23, 1995	1995WO-US02202	
NO 9603508A	August 22, 1996	1996NO-0003508	
FI 9603281A	February 23, 1995	1995WO-US02202	
FI 9603281A	August 22, 1996	1996FI-0003281	
CZ 9602503A3	February 23, 1995	1996CZ-0002503	
EP 751786A1	February 23, 1995	1995EP-0912583	
EP 751786A1	February 23, 1995	1995WO-US02202	
EP 751786A1		WO 9522987	Based on
SK 9601094A3	February 23, 1995	1995WO-US02202	
SK 9601094A3	February 23, 1995	1996SK-0001094	
BR 9506884A	February 23, 1995	1995BR-0006884	
BR 9506884A	February 23, 1995	1995WO-US02202	
BR 9506884A		WO 9522987	Based on
JP 09509661W	February 23, 1995	1995JP-0522429	
JP 09509661W	February 23, 1995	1995WO-US02202	
JP 09509661W		WO 9522987	Based on
HU 75374T	February 23, 1995	1995WO-US02202	
HU 75374T	February 23, 1995	1996HU-0002310	
HU 75374T		WO 9522987	Based on
KR 97701061A	February 23, 1995	1995WO-US02202	
KR 97701061A	August 23, 1996	1996KR-0704651	
KR 97701061A		WO 9522987	Based on
AU 694195B	February 23, 1995	1995AU-0019681	

AU 694195B		AU 9519681	Previous Publ.
AU 694195B		WO 9522987	Based on
NZ 282535A	February 23, 1995	1995NZ-0282535	
NZ 282535A	February 23, 1995	1995WO-US02202	
NZ 282535A		WO 9522987	Based on
US 6290962B1	November 3, 1992	1992US-0970996	CIP of
US 6290962B1	July 6, 1993	1993US-0085938	CIP of
US 6290962B1	February 23, 1994	1994US-0200346	
US 6290962B1		US 5972336	CIP of

INT-CL (IPC): A61 K 0/00; A61 K 9/14; A61 K 31/70; A61 K 38/46; A61 K 39/00; A61 K 39/02; A61 K 39/385; A61 K 39/395; A61 K 48/00

RELATED-ACC-NO: 1994-167131

ABSTRACTED-PUB-NO: US 6290962B
BASIC-ABSTRACT:

Use of a compsn. comprising a Helicobacter urease peptide (I) in the prepn. of a medicament for the treatment of a gastroduodenal disease in a mammal is new. Also claimed are: (1) the use of an antibody which recognises Helicobacter urease in the prepn. of a medicament for the treatment of a gastroduodenal disease in a mammal; and (2) the use of an anti-idiotypic antibody to Helicobacter urease in the prepn. of a medicament for the treatment of a mammal infected with Helicobacter; (3) the resultant compsns. are claimed per se; (4) a compsn. comprising (I); (5) a compsn. comprising the ure B subunit (Ia) of Helicobacter pylori urease, a mucosal adjuvant (II) and hydroxyapatite; (II) comprising procholeragenoid, cholera toxin B subunit, fungal polysaccharides including schizophyllan, muramyl dipeptide, muramyl dipeptide derivs., phorbol esters, liposomes, microspheres, non-Helicobacter pylori bacterial lysates, labile toxin of E. coli, block-polymers, saponins or ISCOMs; (6) a compsn. comprising (Ia) in the form of a fused protein which is genetically linked to the cholera toxin B subunit, the fused protein being further associated with hydroxyapatite and in particulate form; (7) a compsn. comprising peptides which display epitopes sufficiently homologous to epitopes displayed by Helicobacter urease such that antibodies which recognise the epitopes displayed by Helicobacter urease will recognise the epitopes displayed by the peptides; (8) a compsn. comprising an IgA monoclonal antibody which recognises (Ia) and a mucosal adjuvant; a compsn. comprising Helicobacter pylori urease in association with (II) and with hydroxyapatite, and present in particulate form; (9) a compsn. comprising Helicobacter pylori urease in the form of a fused protein which is genetically linked to the cholera toxin B subunit, the fused protein being in association with hydroxyapatite and in particulate form; (10) use of a compsn. comprising (I) in association with (II) and with hydroxyapatite, in the prepn. of a medicament for the prevention of H. pylori infection of a human; and (11) use of a compsn. comprising (I) in the form of a fused protein which is genetically linked to the cholera toxin B subunit, and in association with hydroxyapatite and in particulate form, in the prepn. of a medicament for preventing Helicobacter pylori infection of a human.

USE - The compsns. may be used to treat acute, chronic and atrophic gastritis, peptic ulcer disease including both gastric and duodenal ulcers, gastric cancer, chronic dyspepsia with severe erosive gastroduodenitis, refractory non-ulcer dyspepsia, intestinal metaplasia and low grade MALT lymphoma. Dosage is 100 -1g (pref. 0.14mg) per kg (I).

ABSTRACTED-PUB-NO: WO 9522987A

EQUIVALENT-ABSTRACTS:

Use of a compsn. comprising a Helicobacter urease peptide (I) in the prepn. of a medicament for the treatment of a gastroduodenal disease in a mammal is new. Also claimed are: (1) the use of an antibody which recognises Helicobacter urease in the prepn. of a medicament for the treatment of a gastroduodenal disease in a mammal; and (2) the use of an anti-idiotypic antibody to Helicobacter urease in the prepn. of a medicament for the treatment of a mammal infected with Helicobacter; (3) the resultant compsns. are claimed per se; (4) a compsn. comprising (I); (5) a compsn. comprising the ure B subunit (Ia) of Helicobacter pylori urease, a mucosal adjuvant (II) and hydroxyapatite; (II) comprising procholeragenoid, cholera toxin B subunit, fungal polysaccharides including schizophyllan, muramyl dipeptide, muramyl dipeptide derivs., phorbol esters, liposomes, microspheres, non-Helicobacter pylori bacterial lysates, labile toxin of E. coli, block-polymers, saponins or ISCOMs; (6) a compsn. comprising (Ia) in the form of a fused protein which is genetically linked to the cholera toxin B subunit, the fused protein being further associated with hydroxyapatite and in particulate form; (7) a compsn. comprising peptides which display epitopes sufficiently homologous to epitopes displayed by Helicobacter urease such that antibodies which recognise the epitopes displayed by Helicobacter urease will recognise the epitopes displayed by the peptides; (8) a compsn. comprising an IgA monoclonal antibody which recognises (Ia) and a mucosal adjuvant; a compsn. comprising Helicobacter pylori urease in association with (II) and with hydroxyapatite, and present in particulate form; (9) a compsn. comprising Helicobacter pylori urease in the form of a fused protein which is genetically linked to the cholera toxin B subunit, the fused protein being in association with hydroxyapatite and in particulate form; (10) use of a compsn. comprising (I) in association with (II) and with hydroxyapatite, in the prepn. of a medicament for the prevention of H. pylori infection of a human; and (11) use of a compsn. comprising (I) in the form of a fused protein which is genetically linked to the cholera toxin B subunit, and in association with hydroxyapatite and in particulate form, in the prepn. of a medicament for preventing Helicobacter pylori infection of a human.

USE - The compsns. may be used to treat acute, chronic and atrophic gastritis, peptic ulcer disease including both gastric and duodenal ulcers, gastric cancer, chronic dyspepsia with severe erosive gastroduodenitis, refractory non-ulcer dyspepsia, intestinal metaplasia and low grade MALT lymphoma. Dosage is 100 -1g (pref. 0.14mg) per kg (I).

CHOSEN-DRAWING: Dwg.0/8

DERWENT-CLASS: A96 B04 D16
CPI-CODES: A12-V01; B04-G03; B04-G21; B04-L05; B04-N0300E; B05-B02C; B14-A01; B14-E08; B14-H01B; D05-A02C; D05-H04; D05-H07; D05-H11A; D05-H17C;

L7: Entry 3 of 18 File: USPT Jun 11, 2002

DOCUMENT-IDENTIFIER: US 6403099 B1
TITLE: Conjugates formed from heat shock proteins and oligo-or polysaccharides

Detailed Description Text (107):
Expression and transformation vectors, either extrachromosomal replicons or integrating vectors, have been developed for transformation into many yeasts. For example, expression vectors have been developed for, inter alia, the following yeasts: Candida albicans, Kurtz, et al. (1986) Mol. Cell. Biol. 6:142; Candida maltosa, Kunze, et al. (1985) J. Basic Microbiol. 25:141; Hansenula polymorpha, Gleeson, et al. (1986) J. Gen. Microbiol. 132:3459; Roggenkamp et al. (1986) Mol. Gen. Genet. 202:302; Kluyveromyces fragilis, Das, et al. (1984) J. Bacteriol. 158:1165; Kluyveromyces lactis, De Louvencourt et al. (1983) J. Bacteriol. 154:737; Van den Berg et al. (1990) Bio/Technology 8:135; Pichia quillerimondii, Kunze et al. (1985) J. Basic Microbiol. 25:141; Pichia pastoris, Cregg, et al. (1985) Mol. Cell. Biol. 5:3376; U.S. Pat. No. 4,837,148 and U.S. Pat. No. 4,929,555; Saccharomyces cerevisiae, Hinnen et al. (1978) Proc. Natl. Acad. Sci. USA 75:1929; Ito et al. (1983) J. Bacteriol. 153:163; Schizosaccharomyces pombe, Beach et al. (1981) Nature 300:706; and Yarrowia lipolytica, Davidow, et al. (1985) Curr. Genet. 10:380471 Gaillardin, et al. (1985) Curr. Genet. 10:49.

Detailed Description Text (112):
Preferred adjuvants to enhance effectiveness of the composition include, but are not limited to: (1) aluminum salts (alum), such as aluminum hydroxide, aluminum phosphate, aluminum sulfate, etc; (2) oil-in-water emulsion formulations (with or without other specific immunostimulating agents such as muramyl peptides (see below) or bacterial cell wall components), such as for example (a) MF59 (PCT Publ. No. WO 90/14837), containing 5% Squalene, 0.5% Tween 80, and 0.5% Span 85 (optionally containing various amounts of MTP-PE (see below), although not required) formulated into submicron particles using a microfluidizer such as Model 110Y microfluidizer (Microfluidics, Newton, Mass.), (b) SAF, containing 10% Squalane, 0.4% Tween 80, 5% pluronic-blocked polymer L121, and thr-MDP (see below) either microfluidized into a submicron emulsion or vortexed to generate a larger particle size emulsion, and (c) RIBI.TM. (adjuvant system) (RAS), (Ribi Immunochem, Hamilton, Mont.) containing 2% Squalene, 0.2% Tween 80, and one or more bacterial cell wall components from the group consisting of monophosphorylipid A (MPL), trehalose dimycolate (TDM), and cell wall skeleton (CWS), preferably MPL+CWS DETOX.TM. (monophosphorlipid A+cell wall skeleton); (3) saponin adjuvants, such as STIMULON.TM. (saponin adjuvant) (Cambridge Bioscience, Worcester, Mass.) may be used or particles generated therefrom such as ISCOMs (immunostimulating complexes); (4) Complete Freunds Adjuvant (CFA) and Incomplete Freunds Adjuvant (IFA); (5) cytokines, such as interleukins (IL-1, IL-2, etc.), macrophage colony stimulating factor (M-CSF), tumor necrosis factor (TNF), etc; and (6) other substances that act as immunostimulating agents to enhance the effectiveness of the composition. Alum and MF59 are preferred.

CLAIMS:

6. A conjugate compound comprising at least one heat shock protein from H. pylori of about 54-62 kDa, wherein said heat shock protein includes at least one immunostimulatory domain, said conjugate compound also comprising at least one capsular oligosacchalide or capsular polysaccharide, or immunogenic portion thereof.

7. The conjugate compound of claim 6 comprising the heat shock protein from H. pylori of about 54-62 kDa, or a portion thereof, wherein said heat shock protein includes at least one immunostimulatory domain, said conjugate compound also comprising at least one capsular oligosaccharide or capsular polysaccharide, or immunogenic portion thereof from a bacteria selected from the group consisting of Hemophilus, Salmonella, Streptococcus, and Shigella.

8. The conjugate compound of claim 6 comprising the heat shock protein from H. pylori of about 54-62 kDa, wherein said heat shock protein includes at least one immunostimulatory domain, said conjugate compound also comprising at least one capsular oligosaccharide or immunogenic portion thereof from a bacteria selected from the group consisting of Hemophilus, Salmonella, Streptococcus, and Shigella.

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L7: Entry 1 of 18 File: USPT Jul 1, 2003

DOCUMENT-IDENTIFIER: US 6585975 B1
TITLE: Use of Salmonella vectors for vaccination against helicobacter infection

Detailed Description Text (19):
In addition to aluminum compounds, a large number of appropriate adjuvants for administration by the systemic or parenteral route exist in the art and can be used in the invention. For example, liposomes; ISCOMS; microspheres; protein chochleates; vesicles consisting of nonionic surfactants; cationic amphiphilic dispersions in water; oil/water emulsions; muramidyldipeptide (MDP) and its derivatives, such as glucosyl muramidyldipeptide (GMDP), threonyl-MDP, murametide, and murapalmitin; QuilA and its subfractions; as well as various other compounds, such as DC-chol; monophosphoryl-lipid A (MPLA) major lipopolysaccharide from the wall of a bacterium, for example, E. coli, S. minnesota, S. typhimurium, Shigella flexneri, or N. meningitidus; algan-glucan; gamma-inulin; calcitriol; and loxoribine can be used. Other adjuvants, such as RIBI (ImmunoChem, Hamilton, MT) and polyphosphazene (WO 95/2415), can also be used in parenteral administration.

Detailed Description Text (21):
Useful ISCOMs for the purposes of the present invention can be selected, for example, from those compounds of QuilA or of QS-21 combined with cholesterol and, optionally, also with a phospholipid, such as phosphatidylcholine. These are particularly advantageous for the formulation of the lipid-containing antigens.

Detailed Description Text (26):
A useful adjuvant for the purposes of the present invention can also be a fraction derived from the bark of the South American tree Quillaja Saponaria Molina, for example, QS-21, a fraction purified by HPLC chromatography as is described in U.S. Pat. No. 5,057,540. Since some toxicity may be associated with QS-21, it may be advantageous to use it in liposomes based on sterol, as is described in WO 96/33739.

CLAIMS:

1. A method of inducing an immune response against Helicobacter in a mammal, said method comprising the steps of: mucosally administering to said mammal an attenuated Salmonella vector comprising a nucleic acid molecule encoding a Helicobacter antigen, and parenterally administering to said mammal a Helicobacter antigen.

3. The method of claim 1, wherein said Helicobacter antigen is a urease, a urease subunit, or an immunogenic fragment thereof.

4. The method of claim 1, wherein said mammal is at risk of developing, but does not have, a Helicobacter

infection.

5. The method of claim 1, wherein said mammal has a Helicobacter infection.

6. The method of claim 1, wherein said parenteral administration of said Helicobacter antigen further includes parenteral administration of an adjuvant.

L8: Entry 4 of 5 File: USPT Jun 19, 2001

DOCUMENT-IDENTIFIER: US 6248330 B1
TITLE: Immunogenic compositions against helicobacter infection, polypeptides for use in the compositions, and nucleic acid sequences encoding said polypeptides

Detailed Description Text (274):
Suitable adjuvants that have been developed more recently, include liposomes, immune-stimulating complexes (ISCOMs), and squalene or squalene emulsions. Surface active agents having adjuvant activity can also be employed. These include saponin-like QuilA.RTM. (saponin extract from the bark of the Quillaja saponaria tree) molecules in ISCOMs and Pluronic.RTM. (non-ionic detergent) block copolymers that are used to make stable squalene emulsions. Saponins are surface-active agents widely distributed in plants.

Detailed Description Text (275):
Analogs of muramyl dipeptide (MDP) or muramyl tripeptide (MTP), such as threonine analog of MDP and lipopolysaccharide (LPS) having adjuvant activity and reduced side effects, are also suitable for use as adjuvants. Synthetic analogs of MDP and the monophosphoryl derivative of lipid A are also known for their adjuvant activity and reduced pyrogenicity. A particularly suitable formulation is Syntex Adjuvant Formulation-1 or SAF-1, which combines the threonyl analog of MDP in a vehicle comprised of Pluronic.RTM. L-121 triblock polymer with squalene and a small proportion of Tween 80 as an emulsifying detergent. The preferred adjuvants for use in humans are MDP and its analogs, with or without squalene, saponins, and the monophosphoryl derivative of lipid A. When an adjuvant is combined with the immunogen in the composition and method of the invention, a further enhancement in immune response is observed.

CLAIMS:

1. An immunogenic composition, which induces antibodies against Helicobacter infection, comprising a purified, synthetic, or recombinant Helicobacter HspA polypeptide or a fragment thereof, wherein said fragment has at least 6 amino acids and is immunogenic.

4. The immunogenic composition according to claim 1, further comprising a Helicobacter HspB polypeptide or a fragment thereof, wherein said fragment has at least 6 amino acids and is immunogenic.

6. Proteinaceous material comprising purified, synthetic, or recombinant HspA of Helicobacter pylori or a fragment thereof, wherein said fragment has at least 6 amino acids and is immunogenic.

7. The proteinaceous material according to claim 6, wherein the material comprises the Helicobacter HspA polypeptide having the amino acid sequence illustrated in FIG. 6 (SEQ ID NO: 29) or a fragment thereof, wherein said fragment has at least 6 amino acids and is immunogenic.

9. The proteinaceous material according to claim 6 further comprising a Helicobacter HspB polypeptide or a fragment thereof, wherein said fragment has at least 6 amino acids and is immunogenic.

10. Proteinaceous material comprising a fusion protein, wherein the fusion protein comprises at least one Helicobacter HspA or a fragment thereof as defined in any one of claims 6-9 and at least one polypeptide selected from the group consisting of

a Helicobacter pylori urease structural polypeptide or fragment thereof, wherein said fragment is recognized by antibodies to H. felis urease, and

a Helicobacter felis urease structural polypeptide or immunogenic fragment thereof.

11. An immunogenic composition, which induces antibodies against Helicobacter infection, comprising at least one sub-unit of a purified, synthetic, or recombinant Helicobacter felis urease structural polypeptide selected from the group of polypeptides consisting of SEQ ID NO: 20 and SEQ ID NO: 21, and a heat shock protein (Hsp) from Helicobacter or a fragment thereof, wherein the Hsp protein is HspA or HspA and HspB encoded by the HspA/HspB genes of plasmid pILL689 (CNCM I-1356), and wherein said fragment has at least 6 amino acids and is immunogenic.

12. The immunogenic composition according to claim 11, wherein the Hsp protein is Helicobacter HspA or Hsp A and HspB having amino acid sequence(s) depicted in FIG. 6 (SEQ ID NOS: 29-30), or a fragment thereof, wherein said fragment has at least 6 amino acids and is immunogenic.

14. A pharmaceutical composition comprising the immunogenic composition of any one of claims 1-5, 11 or 12, in combination with physiologically acceptable excipient(s) and, optionally, furter comprising a pharmaceutically acceptable adjuvant.

15. A method for treatment or prevention of Helicobacter infection in a mammal comprising the step of administering the immunogenic composition of claim 13 to said mammal.

16. An immunogenic composition, capable of inducing antibodies against Helicobacter infection, comprising at least one sub-unit of a purified, synthetic, or recombinant Helicobacter felis urease structural polypeptide selected from the group of polypeptides consisting of SEQ ID NO: 20 and SEQ ID NO: 21, further comprising at least one heat shock protein (Hsp) from Helicobacter, wherein the Hsp protein is HspA, HspB, or HspA and HspB encoded by the HspA/HspB genes of plasmid pILL689 (CNCM I-1356), or a fragment thereof, wherein said fragment has at least 6 amino acids and is capable of generating antibodies.

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L8: Entry 5 of 5 File: USPT Dec 1, 1998

DOCUMENT-IDENTIFIER: US 5843460 A
TITLE: Immunogenic compositions against helicobacter infection, polypeptides for use in the compositions, and nucleic acid sequences encoding said polypeptides

Detailed Description Text (280):
Suitable adjuvants that have been developed more recently, include liposomes, immune-stimulating complexes (ISCOMs), and squalene or squalene emulsions. Surface active agents having adjuvant activity can also be employed. These include saponin-like Quil A molecules in ISCOMs and Pluronic.RTM. block copolymers that are used to make stable squalene emulsions. Saponins are surface-active agents widely distributed in plants.

Detailed Description Text (281):
Analogs of muramyl dipeptide (MDP) or muramyl tripeptide (MTP), such as threonine analog of MDP and lipopolysaccharide (LPS) having adjuvant activity and reduced side effects, are also suitable for use as adjuvants. Synthetic analogs of MDP and the monophosphoryl derivative of lipid A are also known for their adjuvant activity and reduced pyrogenicity. A particularly suitable formulation is Syntex Adjuvant Formulation-1 or SAF-1, which combines the threonyl analog of MDP in a vehicle comprised of Pluronic L-121 triblock polymer with squalene and a small proportion of Tween 80 as an emulsifying detergent. The preferred adjuvants for use in humans are MDP and its analogs, with or without squalene, saponins, and the monophosphoryl derivative of lipid A. When an adjuvant is combined with the immunogen in the composition and method of the invention, a further enhancement in immune response is observed.

CLAIMS:

1. An immunogenic composition, capable of inducing antibodies against Helicobacter infection, comprising:

i) at least one urease structural polypeptide encoded by the UreB gene of Helicobacter pylori or Helicobacter felis or immunogenic fragment thereof comprising at least six consecutive amino acids; and

ii) at least one heat shock protein encoded by the Hsp A gene of Helicobacter pylori or Helicobacter felis or immunogenic fragment thereof, comprising at least 6 consecutive amino acids,

said composition being substantially free of other Helicobacter pylori or Helicobacter felis proteins.

2. An immunogenic composition comprising an immunizing amount of a mixture of Helicobacter pylori or Helicobacter felis antigens, wherein said mixture consists essentially of UreB and HspA of H. pylori or H. felis

substantially free of other H. pylori or H felis proteins.

5. The immunogenic composition according to claim 1 or claim 2, additionally comprising an adjuvant.

6. The immunogenic composition according to claim 1 or claim 2, wherein said composition produces an immunogenic effect when administered to a mammal, wherein the immunogenic effect is substantially the same as the immunogenic effect produced in the mammal when a total cell extract of Helicobacter pylori or Helicobacter felis is administered to said mammal.

10. A pharmaceutical composition for use in a vaccine against Helicobacter pylori or Helicobacter felis, comprising the immunogenic composition according to claim 1 or claim 2, in combination with a pharmaceutically acceptable carrier.

L13: Entry 1 of 8 File: USPT Jul 1, 2003

DOCUMENT-IDENTIFIER: US 6585975 B1
TITLE: Use of Salmonella vectors for vaccination against helicobacter infection

Detailed Description Text (20):
Useful liposomes for the purposes of the present invention can be selected, for example, from pH-sensitive liposomes, such as those formed by mixing cholesterol hemisuccinate (CHEMS) and dioleyl phosphatidyl ethanolamine (DOPE); liposomes containing cationic lipids recognized for their fusiogenic properties, such as 3-beta-(N-(N',N'-dimethylamino-ethane)carbamoyl)cholesterol (DC-chol) and its equivalents, which are described in U.S. Pat. No. 5,283,185 and WO 96/14831; dimethyldioctadecylammonium bromide (DDAB) and the BAY compounds described in EP 91645 and EP 206 037, for example, Bay R1005 (N-(2-deoxy-2-L-leucylamino-beta-D-glucopyranosyl)-N-octa-decyldodecanoyla mide acetate; and liposomes containing MTP-PE, a lipophilic derivative of MDP (muramidyldipeptide). These liposomes are useful as adjuvants with all of the antigens described herein.

CLAIMS:

1. A method of inducing an immune response against Helicobacter in a mammal, said method comprising the steps of: mucosally administering to said mammal an attenuated Salmonella vector comprising a nucleic acid molecule encoding a Helicobacter antigen, and parenterally administering to said mammal a Helicobacter antigen.

3. The method of claim 1, wherein said Helicobacter antigen is a urease, a urease subunit, or an immunogenic fragment thereof.

4. The method of claim 1, wherein said mammal is at risk of developing, but does not have, a Helicobacter infection.

5. The method of claim 1, wherein said mammal has a Helicobacter infection.

6. The method of claim 1, wherein said parenteral administration of said Helicobacter antigen further includes parenteral administration of an adjuvant.